

#### Using Dynamic Classification To Expand Individual/Intuitive Search Processes

# **NMCI** Industry Forum

New Orleans, June 18, 2003

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## Outline of the talk

- ✓ Search process from a users perspective
- ✓ Imagination at work
- ✓ Behind the scene
- ✓ Benefits for NMCI





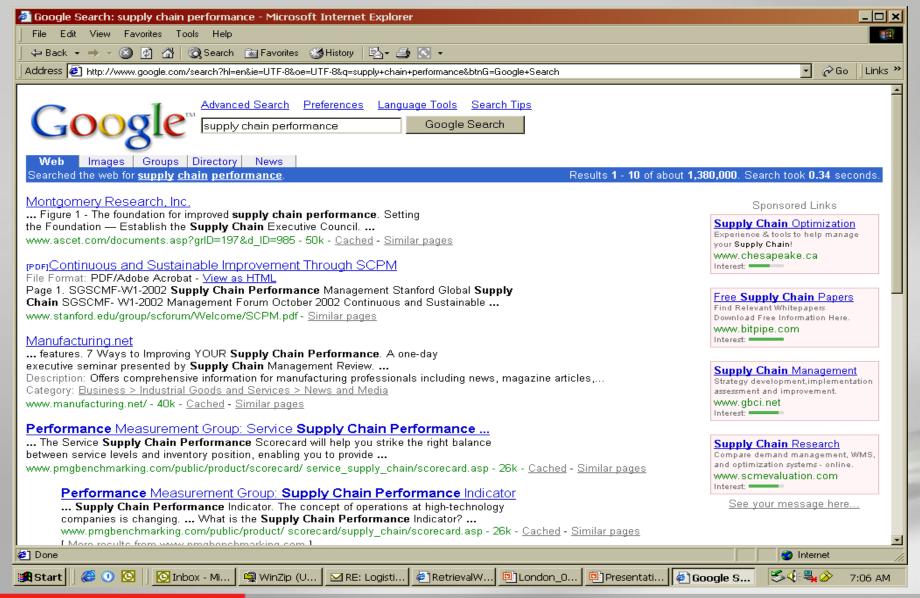
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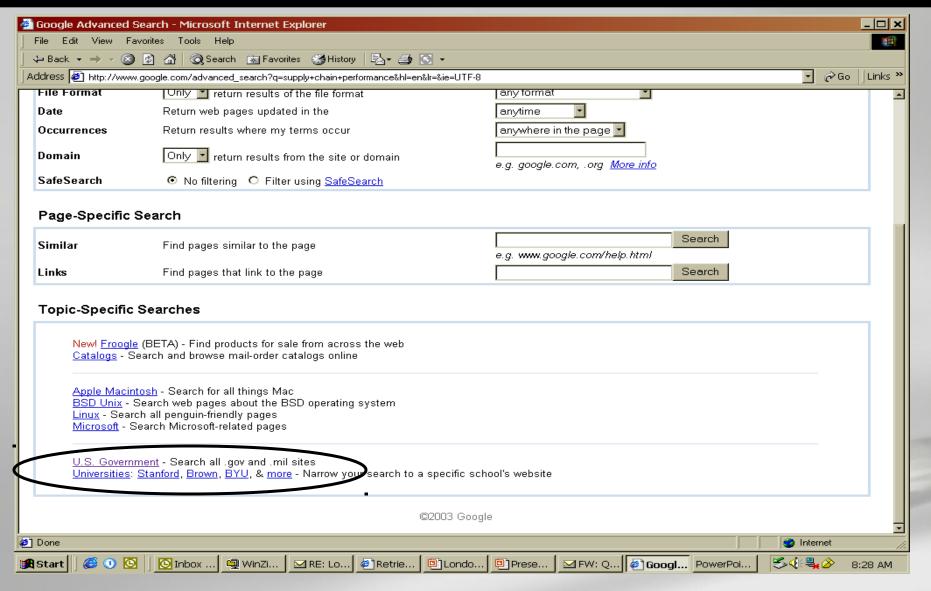


## Everyday search experience



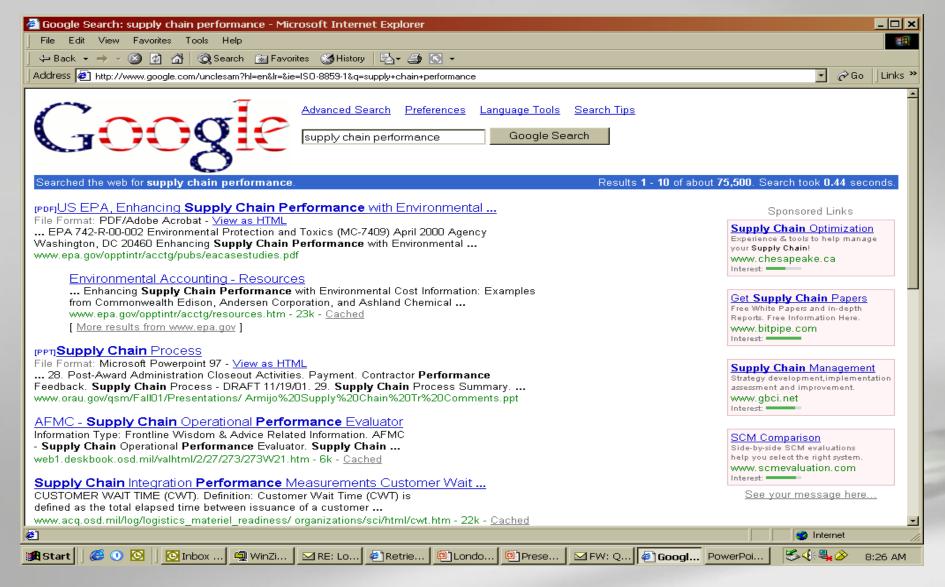


#### Refine Search to Government Sites



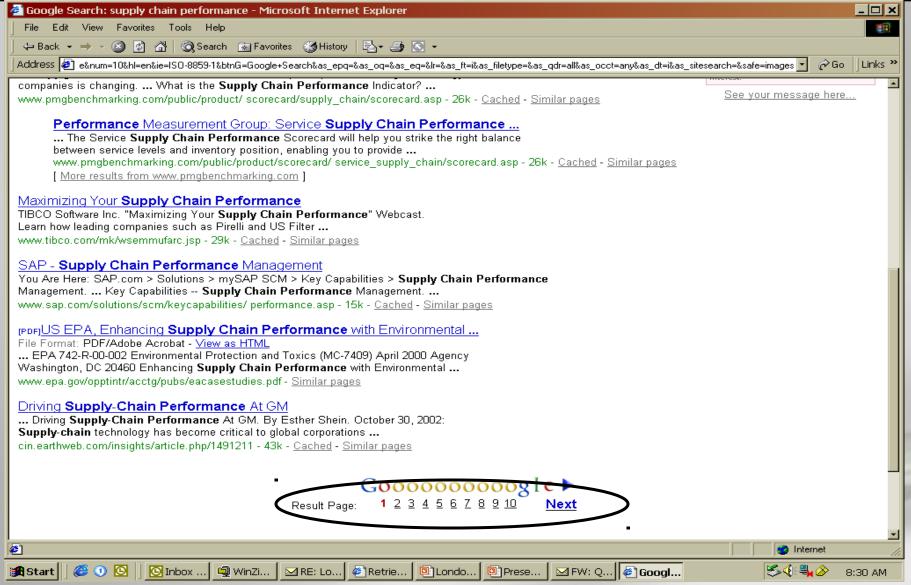


## Still too many results to deal with



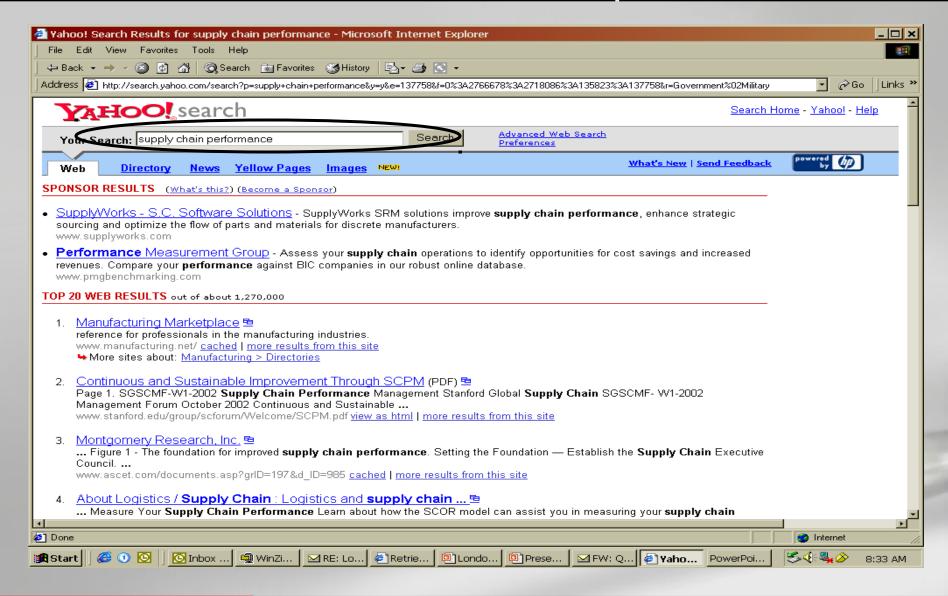


## Success depends a lot on being



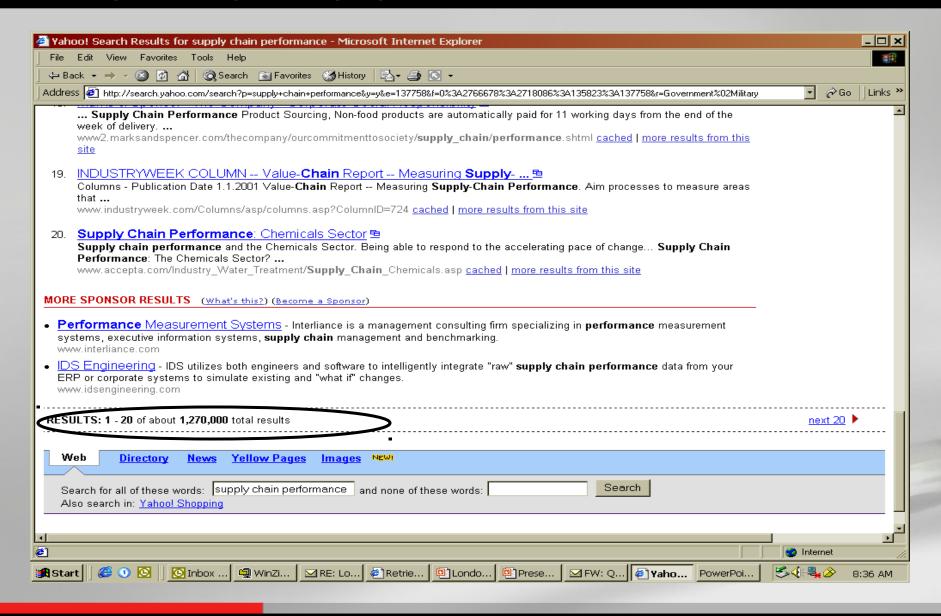


## How about the Yahoo Experience?



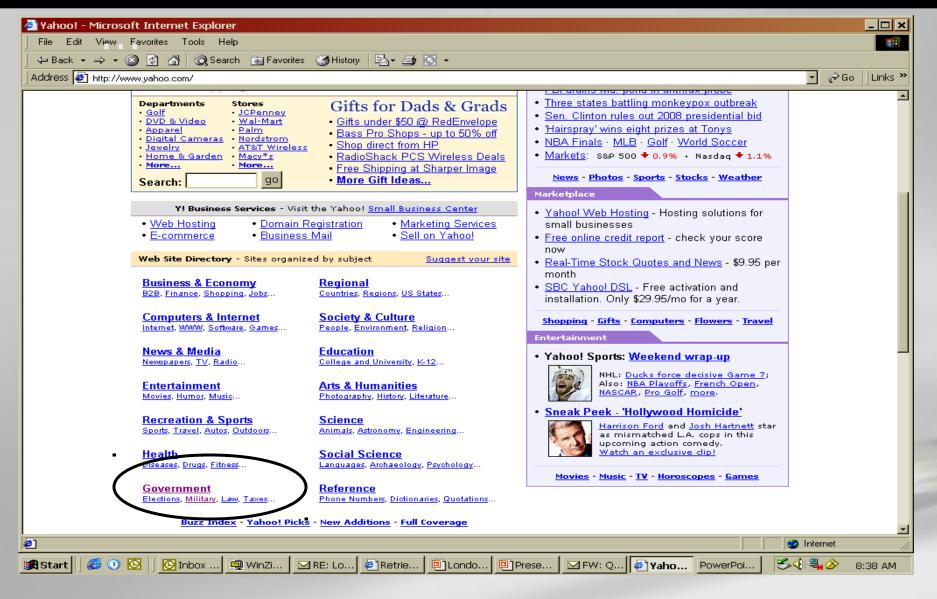


#### ••• Still not there





#### ••• The folders offer an alternative but





## Summary of User Search Experience

- Simple keyword search can be frustrating and timeconsuming
- Results are based on most popular links, not what is relevant to user's context
- Categories in Yahoo or Portal Interfaces are static and have to be updated manually
- Modern Search Engines can deal with large volumes and variety of data formats but
- This works when you know what you are looking for

Is there a better way which adds discovery to the Find Process?



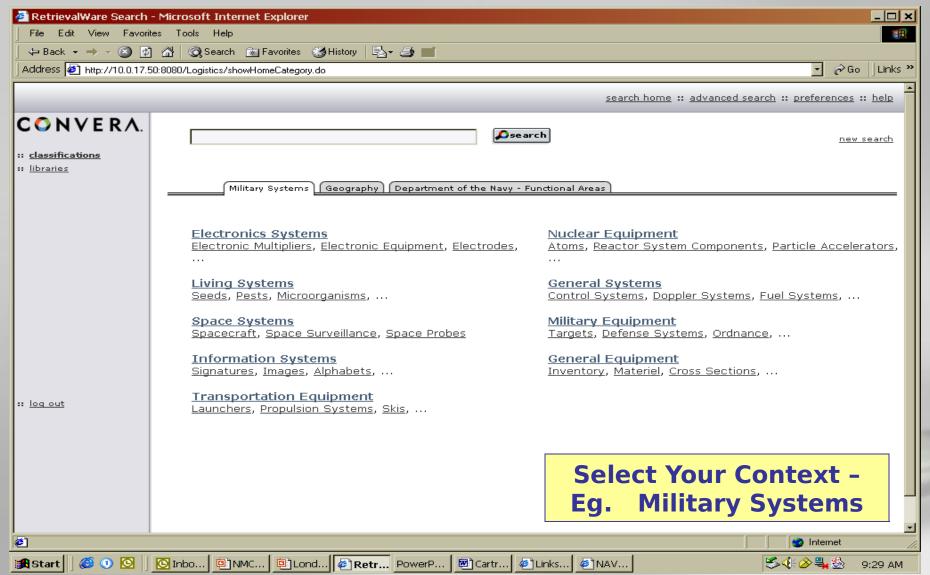
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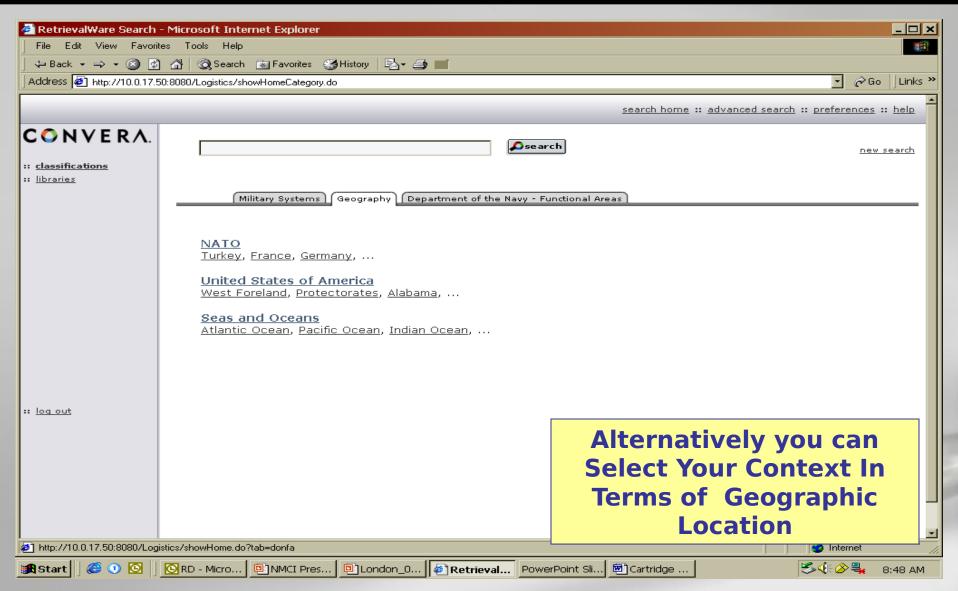


## Browsing Yahoo Style at NMCI



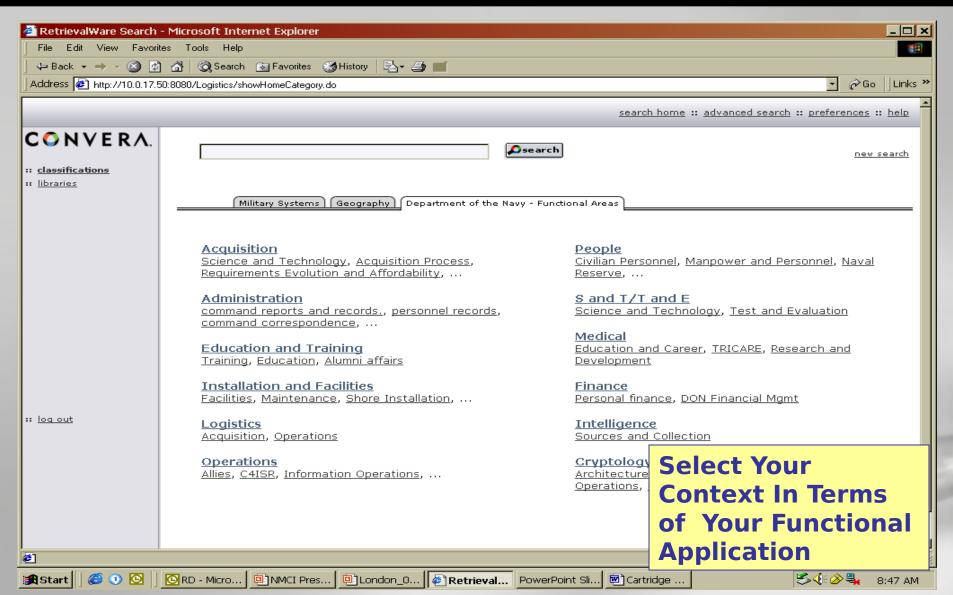






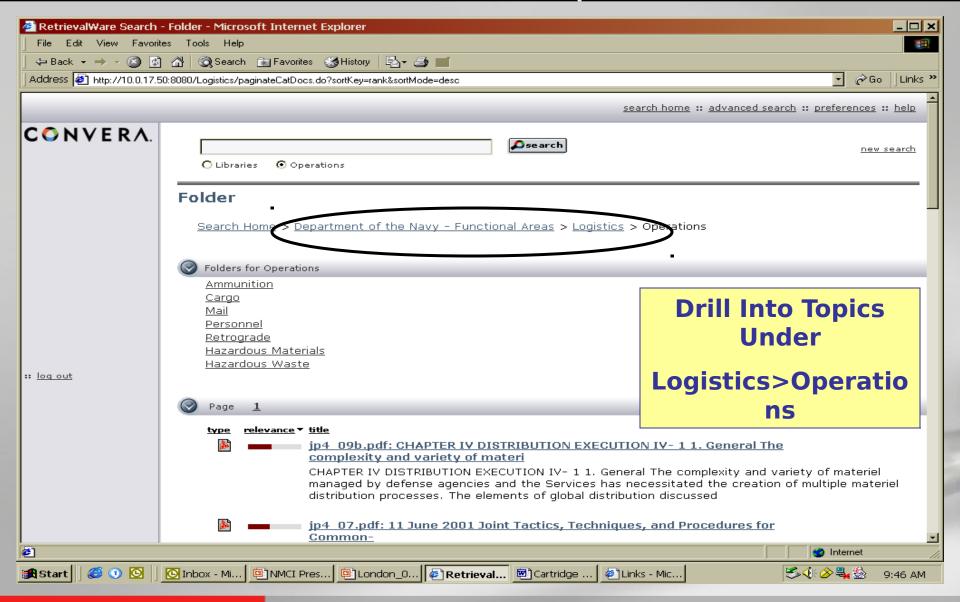


#### ••• Or ...



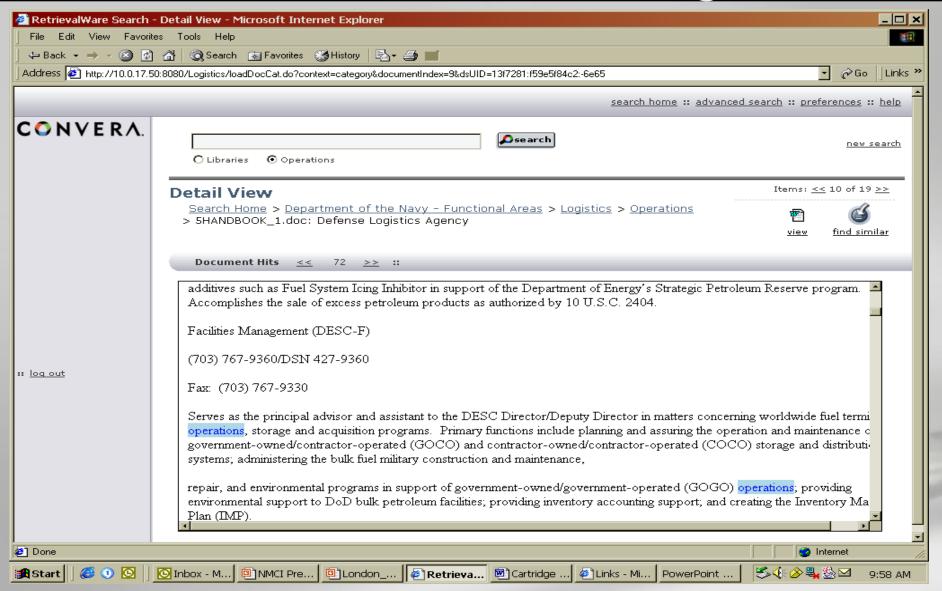


## ••• Then, Drill Down to Topics of Interest



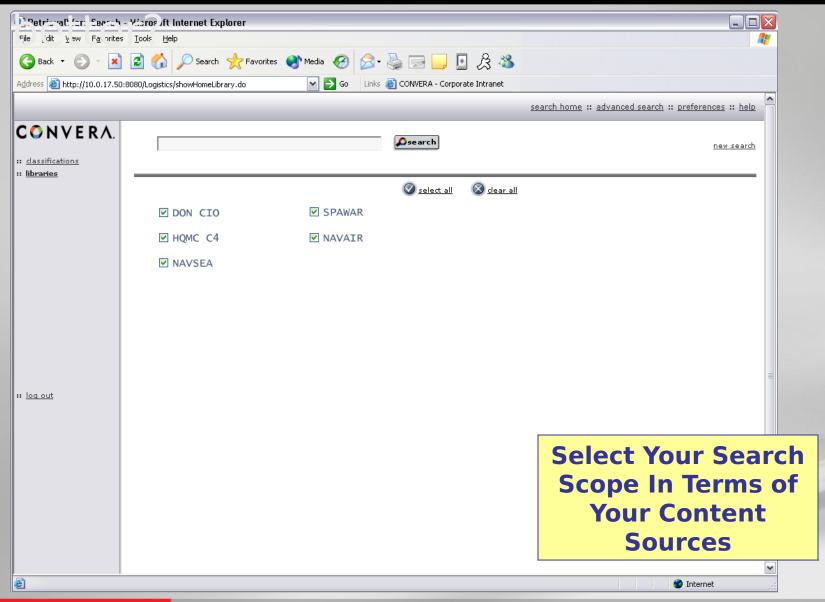


### To Find What You Are Looking For



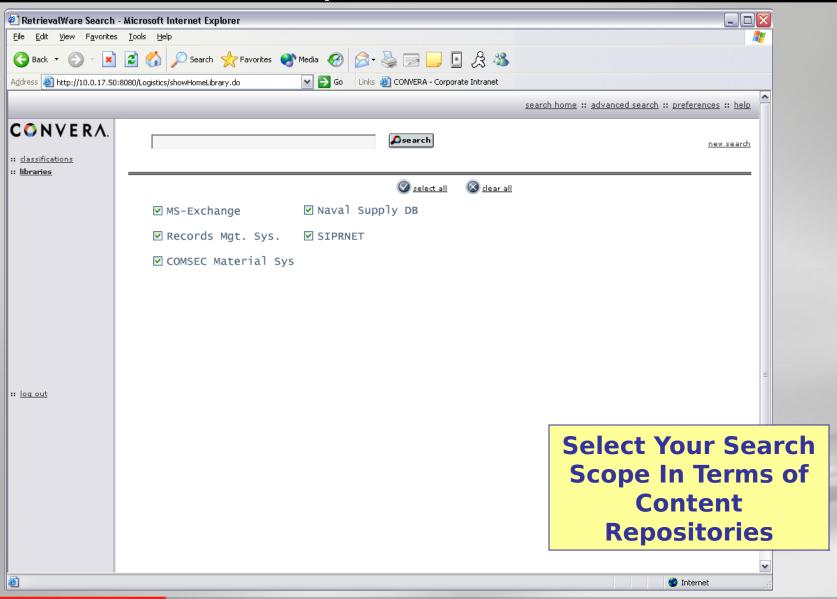


#### But, How does it make Search



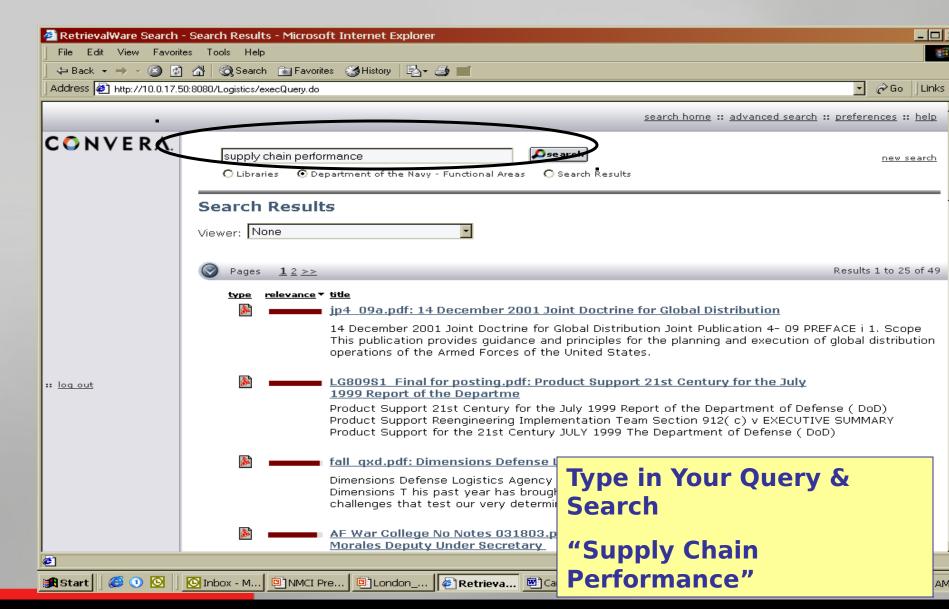


## Which Data Repositories Do I



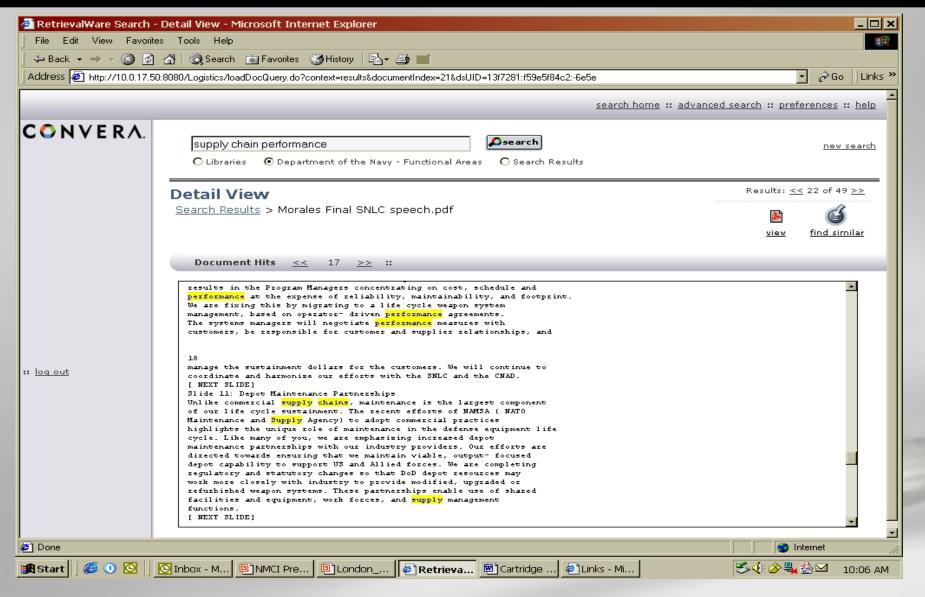


## Start with Keyword Search



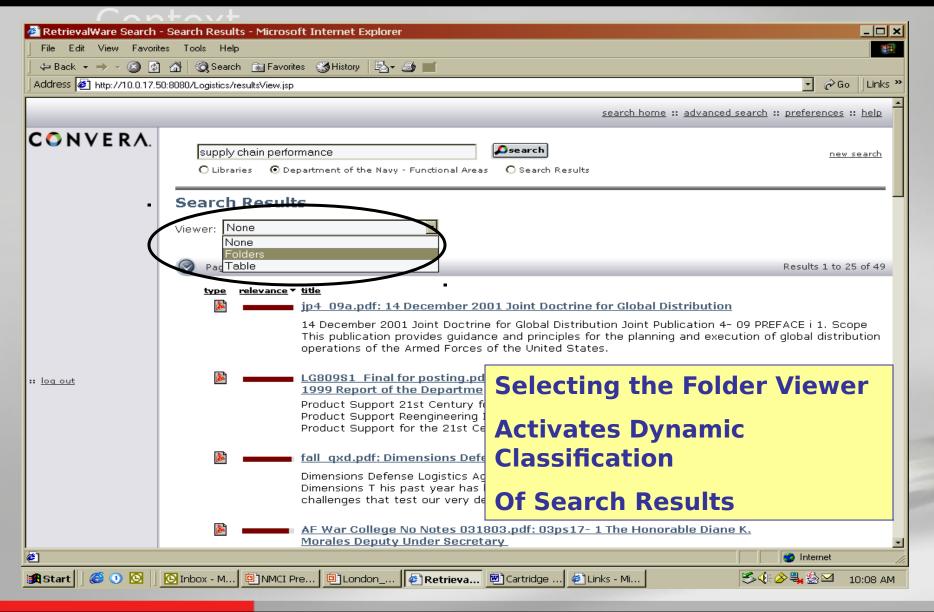


#### View Relevance Ranked Results



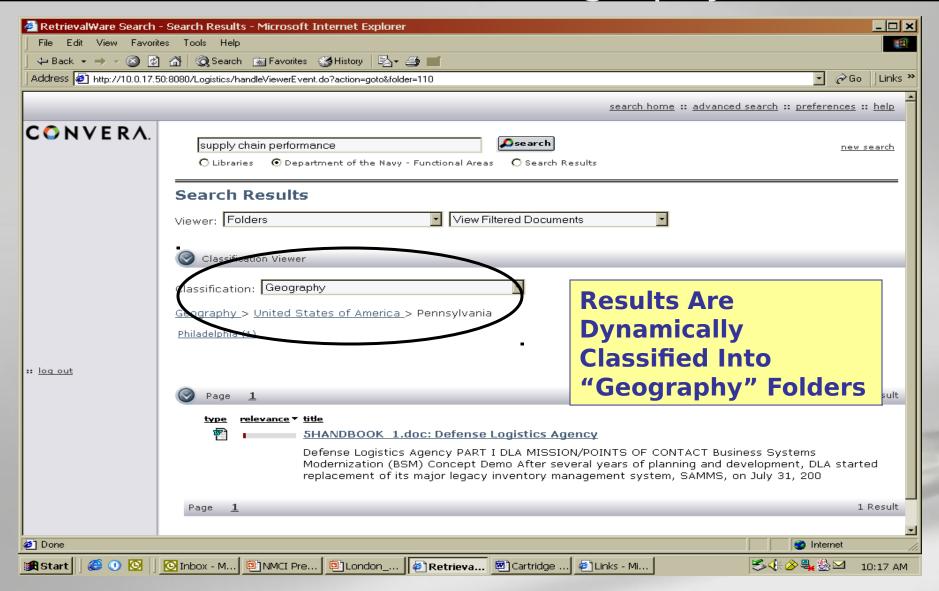


#### Dynamic Classify Search Results in



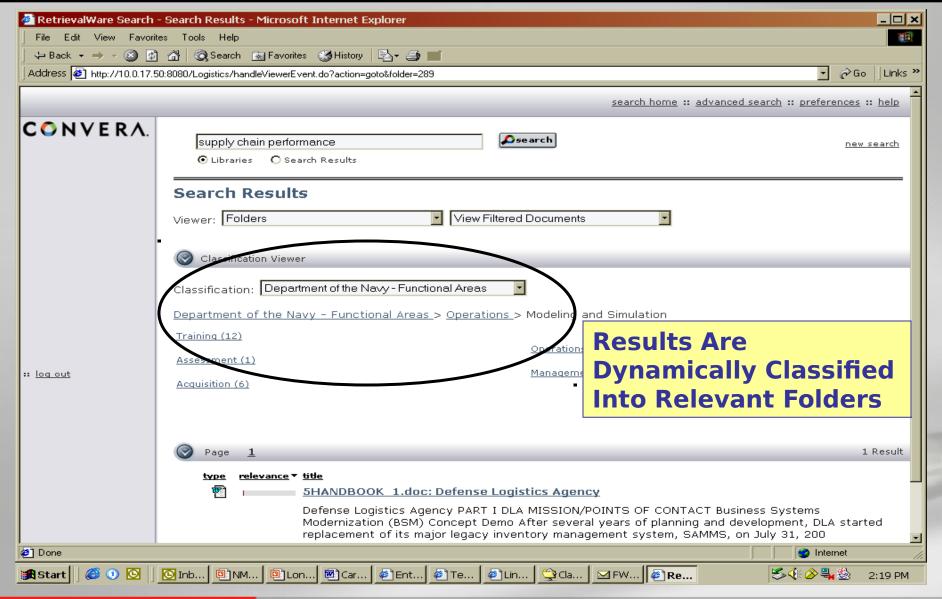


## ••• IF Your Context is "Geography"



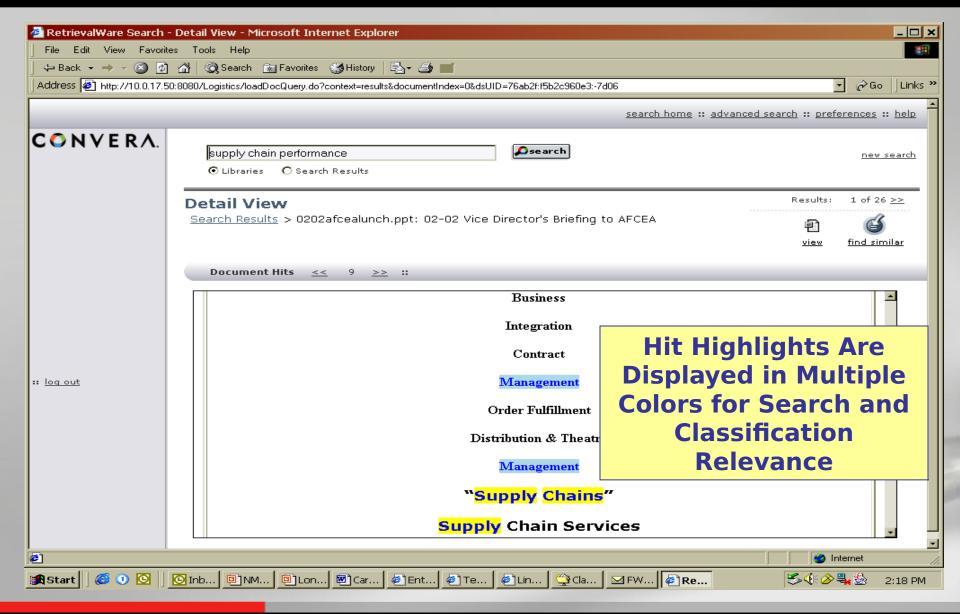


#### ••• IF Your Context is "Modeling & Simulation"



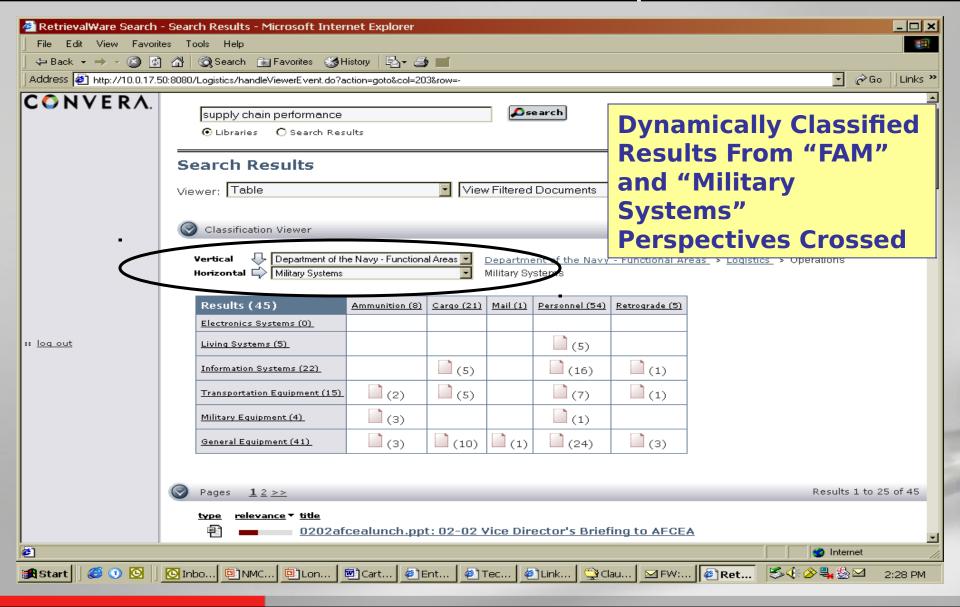


#### View Relevance to Context



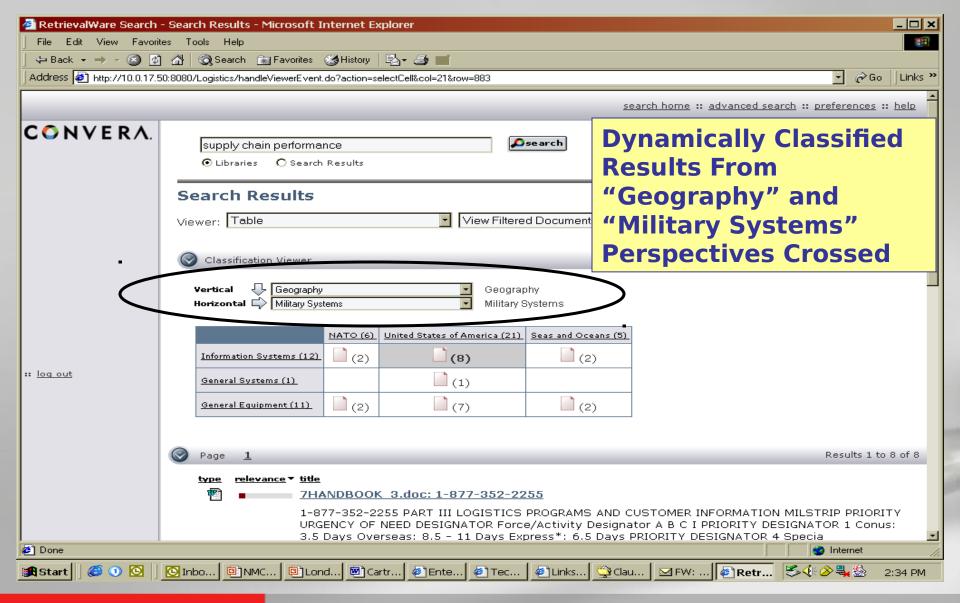


## View Results from 2-Perspectives





## Change Perspectives





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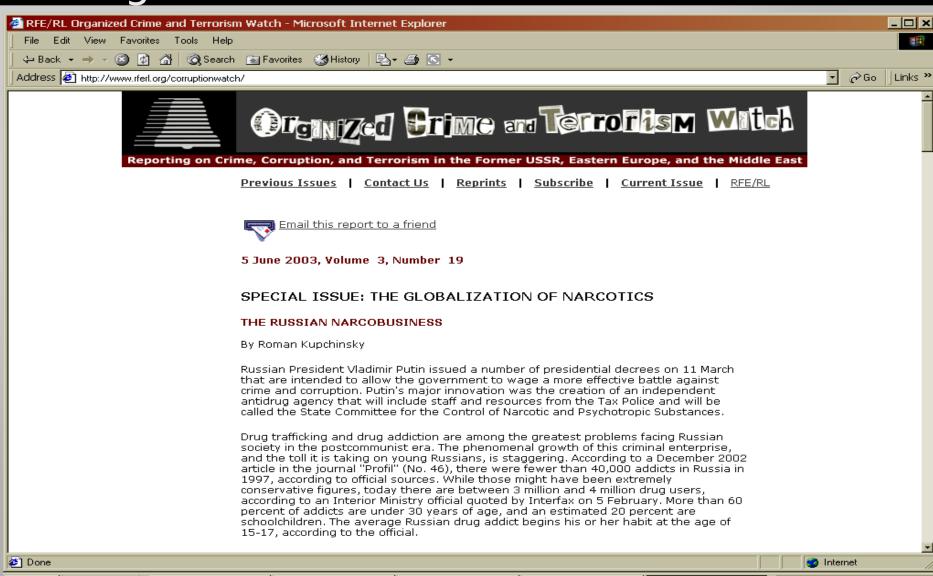


#### Ingest Filters

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**Start** 

Convera Field Te...



| I Microsoft PowerP...| I Mark & C&DC Whit...| I Mark RFE/RL Organiz... I Solid Selection | Solid National Property | So



#### Lexicon Extraction

#### THE MERGER BETWEEN CRIME AND TERRORISM

## 6 December 2001, Volume 1, Number 6 by Radio Free Europe/RL

The line dividing crime and terrorism is an amorphous one at best. Where did Al-Qaeda find the estimated \$500,000 required to pay for the flight training, travel, phone calls, and flight tickets for the 19 men who attacked America on 11 September? Was this merely money belonging to one individual, or was it money raised from the sale of Afghan opium to criminal drug cartels in Europe for resale on the streets of Berlin and Amsterdam? Many experts claim that the fight against terrorism and organized crime represents two sides of the same coin...

Opium and heroin processed in Afghanistan reaches the West by two major routes: the Northern route, through Central Asia to Russia and Ukraine, then through Poland to Western Europe; and the Balkan route, via Turkey to Bulgaria, Albania, and Italy, then north to Austria and the rest of Europe. A substantial amount of drugs, mostly heroin, from Afghanistan has been confiscated from traffickers recently in Iran, Tajikistan, and Bulgaria.



# ••• World Geography Taxonomy

**Europe** Geography **Western Europe Belgium** Brussels **Netherlands Amsterdam Southern Europe** Greece **Athens Bulgaria** Sofia Italy Rome

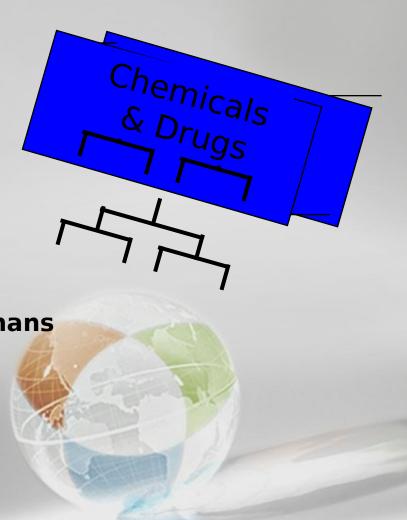


# Chemicals and Drugs Taxonomy

Heterocyclic Compounds
Acids
...
Alkaloids
Aconite
Aconitine
...
Opium
Morphinans
Benzomorhans

Morphine Noscapine

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# ••• Terrorism Taxonomy

**International Al-Qaeda Aum Shinrikyo Hamas** PKK **PLO** October 6 **Domestic Cults Militias New World Order White Supremacy** 





### Taxonomy Activation

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## What Is This Document About?

#### **Semantic Signature**

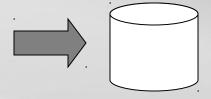


**Document** 

**Geography -** (Europe(4), Berlin, Amsterdam, Afganistan,, Turkey, Bulgaria (2), Albania, Italy, Austria, Afganistan (2) ...

**Terrorism -** crime (4), terrorism (3), Al-Qaeda, Drug cartels, traffickers ...

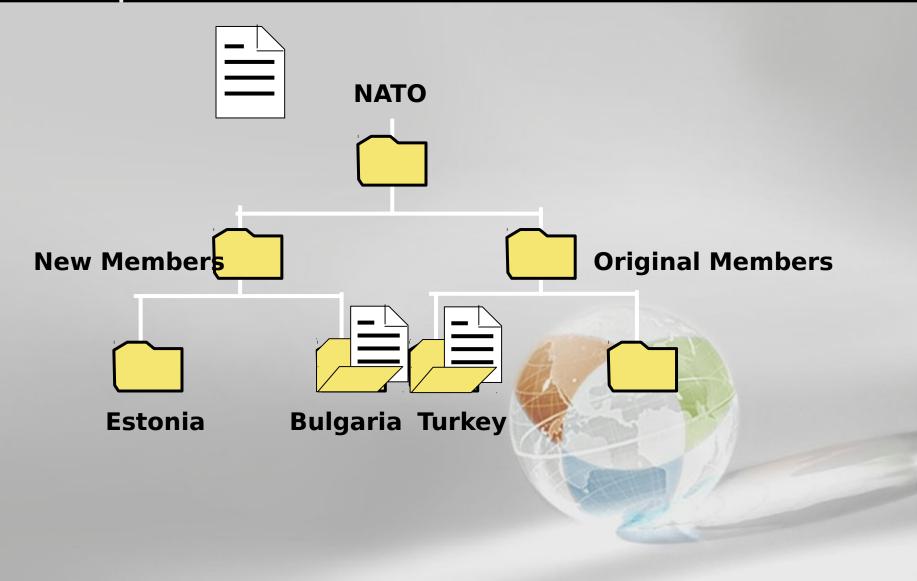
Chemicals and Drugs - opium (2), heroin (2), drug (2), ...



Index

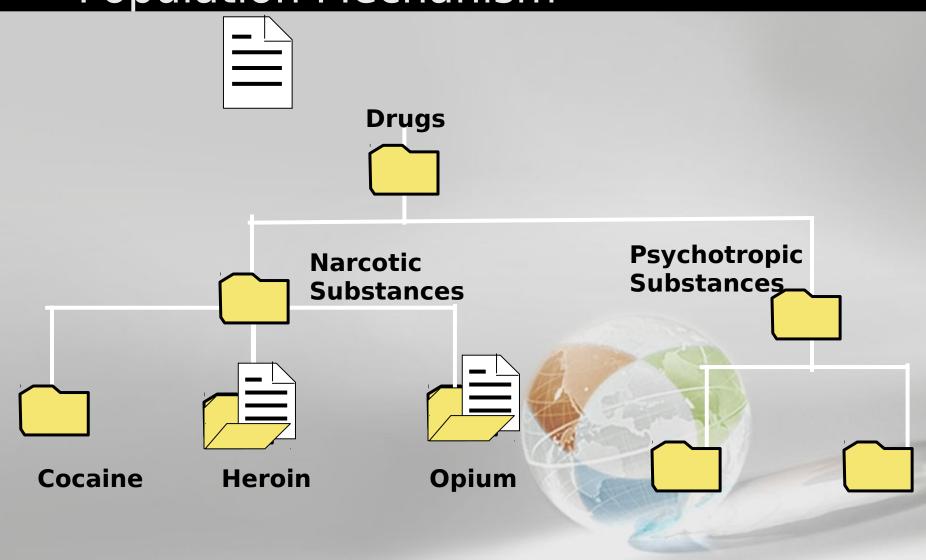


## Population Mechanism



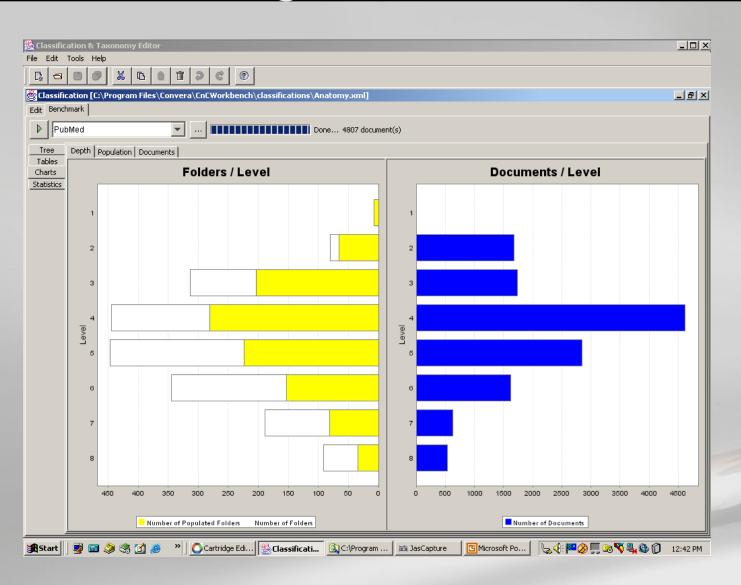


## Population Mechanism





## Benchmarking Tools





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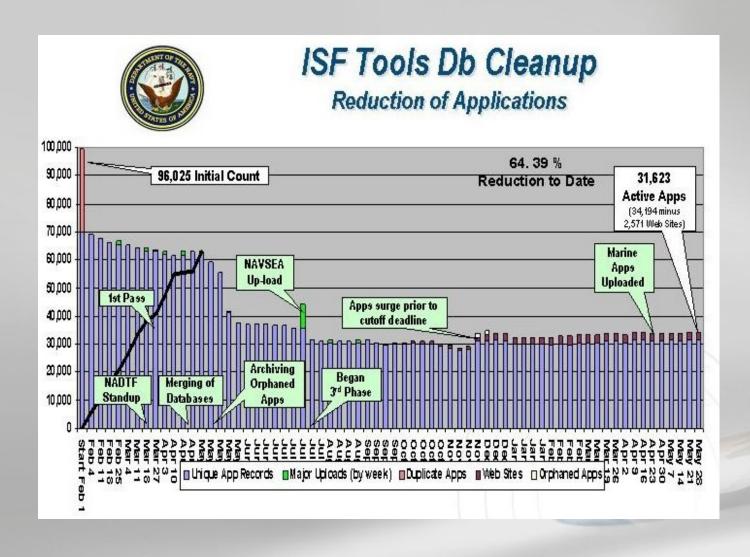
## How NMCI Can Benefit ...

- Document & Records Management
- Visual Information Management (VIMS)
- Portal Applications
- Legacy Application Transition





## Supports Transition Goals



## ••• Enterprise Centric Search at NMCI ...



ROLES

CHANNELS

SOLUTION

SOURCES









**OFFICE OF CNO** 

DCNO (N1)

**BUREAU OF NAVAL PERSONNEL** 

**CHIEF OF EDUCATION** AND TRAINING

**US NAVAL ACADEMY** 



GOVERNMENT **INTRANETS** 









#### **Business Intelligence/Visualization**

#### **RetrievalWare® Enterprise**

Intelligent Cross-Lexical / Cross-Repository, Multimedia Search and Categorization



FILE **SYSTEMS** 



**COLLABORATION** / EMAIL DB



**TRIM** 





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**TEXT** 





**AUDIO** 



**IMAGES** 

**VIDEO** 

#### Thank You

## **Mushtaq Khan**

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